

PRESS RELEASE

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## Results from the PVSITES project as it achieves another relevant milestone: “Software tool and web services available”

One of the main challenges that the PVSITES project tackles is the need for a software tool for the joint simulation of BIPV products and building energy performance. The solution lies on the development of an accurate, user-friendly, integrated, building adapted software tool for performance prediction of BIPV systems that allows setting a simplified framework for Architecture, Engineering and Construction industry to share information on the building project from different levels of software complexity.

Early this year, PVSITES project partner CADCAMation has released a fully-functional beta version of the PVSITES software. In this version, the PVSITES SaaS (Software as a Service) platform has been designed as an enhanced website accessible for free to all users on a dedicated [webServices platform](#). The BIM-compatible suite is designed to ease the integration of BIPV systems in buildings at the design stage, covering the electrical, thermal and optical domains.

In this pre-commercial version, first User Stories (US) from BIPV experts, architects, manufacturers and installers have been identified and turned into new tool features that are summarised at the [PVSITES website](#). The related features in this beta version focus on graphical user interfaces (GUIs) and data configurators (irradiance and environmental) within the PVSITES software to deliver crucial information to users. To be highlighted:

- **Real time 3D viewer:** to optimize the design workflow, the PVSITES solution allows instant import of 3D models combined with intuitive and real-time results display, the online viewer enables the user to navigate into the scene with equal performance and functionalities than in the standalone simulator. Further than navigation, the tool provides results through 3D graphical user interfaces, diagrams, and histograms.

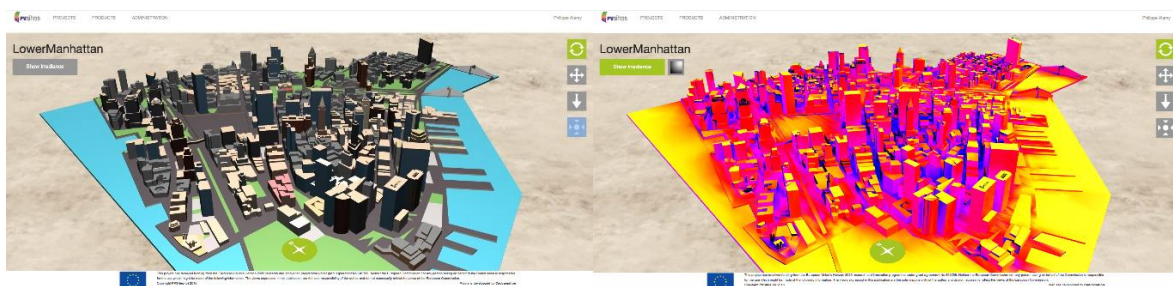


Figure 1- 3D online viewer – Irradiance display

- **Projects featuring:** the platform offers to users the possibility to upload their projects to the webserver and manage the publication from any web browser. (Figure2)
- **Support to early adopters:**, direct support will be given, through a “Contact us” form (Figure 2), in the best way to solve the problem and to learn about the user experience.



Figure 2- Projects publication on line - Ask for support form

In addition, PVSITES BIM objects have been designed and embedded within the simulation software. A pre-commercial version of PVSITES eCatalog is open to public use as a BIPV Product Information Manager (PIM) through web access. The PIM aims at configuring virtual BIM objects considering the real technical characteristics (geometrical, electrical, thermal, optical) to be used as input to the simulation and calculation models.

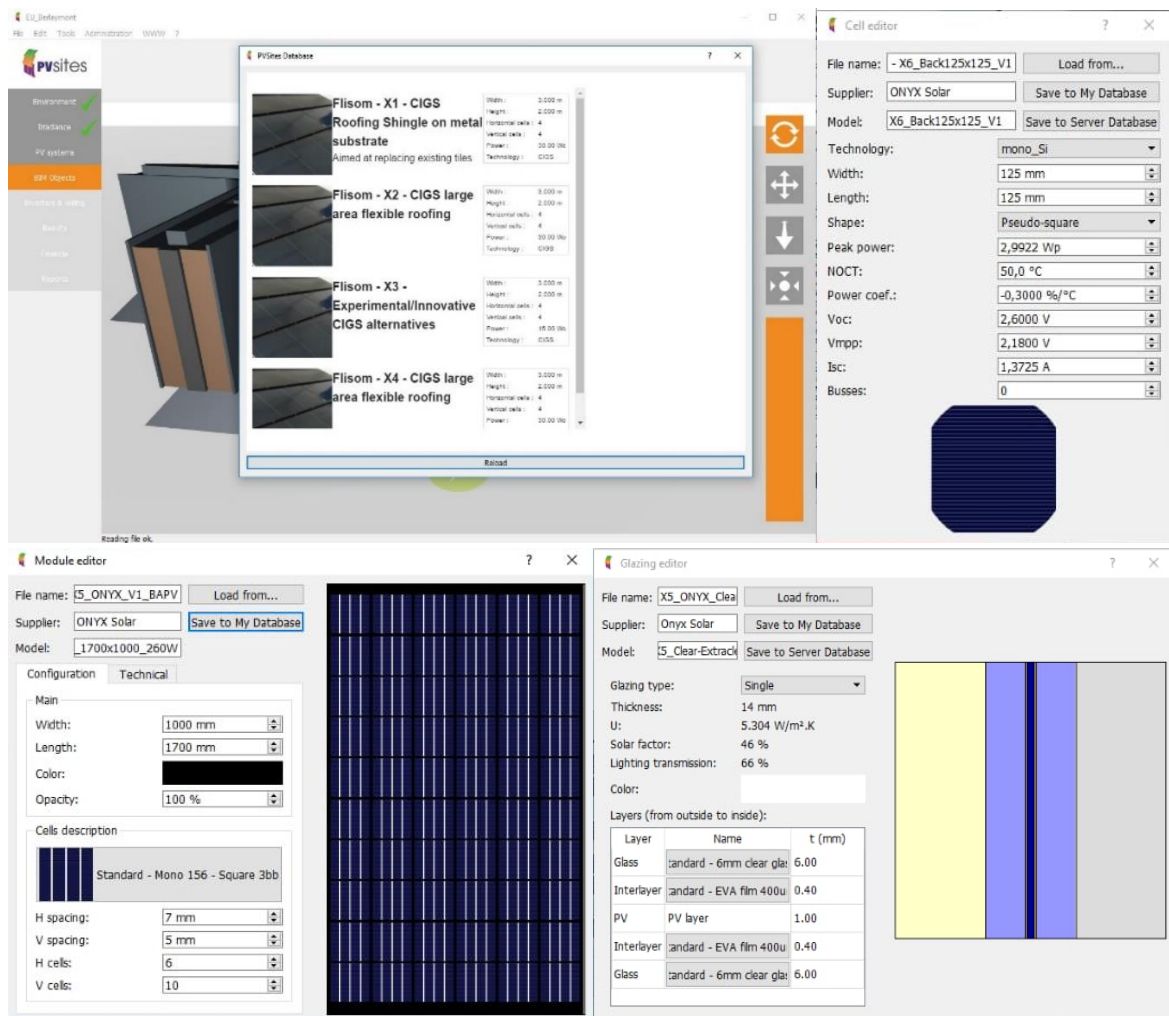


Figure 3- Product Information Manager; from cell editor to glazing editor

As a result, BIPV systems performance can be simulated, calculated and visualized using the BIM-based software developed within the PVSITES project. The coupling of PVSITES software with EnergyPlus simulation engine is under development. When this work is finalized, building designers will be able to optimize not only the electrical production (PV) but also the associated thermal performance of the designed BIPV implementation, while minimizing the building energy needs, in order to progress towards the achievement of NZEB targets.

The suitability of this software to be used on existing buildings for refurbishment strategies with lower cost BIPV products offers strong opportunities, from evaluation to decision support, and considering energy savings coupled to improvements to thermal comfort, aesthetics and to the conjunction of performance and ecology.

Finally, having successfully completed this milestone, the main objective now is to continue improving the quality of the graphical user interface, specifying, developing and validating the PVSITES webServices from the SaaS platform as soon as it will be able to deal with BIM compatibility and eCatalogs experimentation for the manufacturers.

For more information visit the PVSITES website [www.pvsites.eu](http://www.pvsites.eu) , join this [LinkedIn group on BIPV](#), or contact the project coordinator:

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